

AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A manufacturing method for a semiconductor laser device in which a semiconductor laser chip is mounted on a base portion by using an electrically conductive die-bond paste using a metal including metal filler, the method comprising:

applying the conductive die-bond paste onto the base portion;

mounting the semiconductor laser chip onto the base portion on which the conductive die-bond paste has been applied;

heating the semiconductor laser chip mounted on the base portion while the semiconductor laser chip is kept pressurized by a collet bearing a weight toward the base portion, thereby temporarily curing the conductive die-bond paste; and

after the temporary curing, finally curing the conductive die-bond paste in a thermostat without pressurizing by the collet.

Claim 2 (Currently amended): A semiconductor laser device comprising a semiconductor laser chip mounted on a base portion by using an electrically conductive die-bond paste using a metal including metal filler, wherein

thermal resistance of the semiconductor laser device is 90°C/W or lower.

Claim 3 (original): The semiconductor laser device according to Claim 2, wherein creep-up height of the conductive die-bond paste at a side face of the semiconductor laser chip from a die-bond surface of the semiconductor laser chip is not more than 40 μm .

Claim 4 (original): The semiconductor laser device according to Claim 2, wherein the conductive die-bond paste interposed between a die-bond surface of the semiconductor laser chip and the base portion is 5 μm or lower thick.

Claim 5 (Currently amended): The semiconductor laser device according to Claim 2, wherein

the metal filler included in the conductive die-bond paste using a metal is silver paste.

6 (New). The semiconductor laser device according to claim 5, wherein the content ratio of silver in the conductive die-bond paste is 82% - 84%.